Knowledge-Based SYSTEMS

Index to Volume 6 (1993)

No 1 (March) pp 1–64
No 2 (June) pp 65–128
No 3 (September) pp 129–184
No 4 (December) pp 185–280

Article index

March

Special issue: Knowledge-based interaction

From scientific computation to decision support
H. J. van Zuylen 3

Using the FOCUS architecture for developing knowledge-based front ends: a KBFE for forecasting
A. Prat, M. Catot, P. Fletcher, J. Lorés and R. Southwick 11

Can complex conventional programs be revitalized?
J. Hensgens and P. Letanoux 17

Design of an intelligent interface to standard PC applications which maximises the ability of the disabled user
J. A. Hewitt and P. G. R. Halford 24

Knowledge-based system requirements
R. M. Jones, L. Candy and E. A. Edmonds 31

How can knowledge-based systems solve large-scale problems?: model-based decomposition and problem solving
S. Ohsuga 38

June

Plans in natural-language dialogues
B. Chaib-draa 67

Distributed intelligent systems: issues, perspectives and approaches
G. Uma, B. E. Prasad and O. N. Kumari 77

Efficient hypothetical reasoning system for predicate-logic knowledge base
A. Kondo, T. Makino and M. Ishizuka 87

Multiple context planning within a truth-maintenance system
A. D. Bray, C. J. Hinde, P. J. Herbert, D. M. Temple and D. Round 95

Reasoning by coordination: an integration of case-based and rule-based reasoning systems
R. T. H. Chi and M. Y. Kiang 103

Knowledge-based system for computer-aided drug design
E. Suzuki, T. Akutsu and S. Ohsuga 114

September

Feature extraction and validation within a flexible manufacturing protocol
B. Kumar, D. K. Anand, M. Anjanappa and J. A. Kirk 130

Towards competent information acquisition interactions between an expert system and its user
E. T. Keravnou, J. Washbrook and F. Dams 141

FEATS: knowledge representation and processing issues
A. Bykat 157

Knowledge-based approach to structural integrity verification in requirements analysis and logical system specification
R. Agarwal, S. Sakthivel and M. Tanniru 165

Reachability trees for Petri nets: a heuristic approach
G. Uma and B. E. Prasad 174

December

Special Issue: Intelligent user interfaces
Guest Editors: W. E. Hefley, Carnegie Mellon University, USA
D. Murray, University of Surrey, UK

Price of flexibility in intelligent interfaces
D. D. Woods 189

Adaptive systems: from intelligent tutoring to autonomous agents
D. Benyon and D. Murray 197

From user interface design to the support of intelligent and adaptive interfaces: an overhaul of user interface software infrastructure
P. Sukaviriya 220

Design, implementation and evaluation of an adaptive user interface
C. G. Thomas 230

User-centered approach to adaptive interfaces
T. Kühme 239

Cognitive task analysis and interface design in a technical troubleshooting domain
L. S. Steinberg and D. H. Gitomer 249

Wizard of Oz studies — why and how
N. Dahlbäck, A. Jönsson and L. Ahrenberg 258

Towards automatic evaluation of multimodal user interfaces
J. Coutaz, D. Salber and S. Balbo 267

Author index

Agarwal, R. 165
Ahrenberg, L. 258
Akutsu, T. 114

Balbo, S. 267
Benyon, D. 197
Bray, A. D. 95
Bykat, A. 157

Candy, L. 31
Catot, M. 11
Chaib-draa, B. 67
Chi, R. T. H. 103
Coutaz, J. 267

Dahlbäck, N. 258
Dams, F. 141

Edmonds, E. A. 31

Fletcher, P. 11

Gitomer, D. H. 249

Halford, P. G. R. 24
Hensgens, J. 17
Herbert, P. J. 95
Hewitt, J. A. 24
Hinde, C. J. 95

Ishizuka, M. 87

Jones, R. M. 31

Jönsson, A. 258

Keravnou, E. T. 141
Kiang, M. Y. 103
Kondo, A. 87
Kühme, T. 239

Letanoux, P. 17
Lorés, J. 11

Makino, T. 87
Murray, D. 197

Nalini Kumari, O. 77

Ohsuga, S. 38, 114

Prasad, B. E. 77, 174
Prat, A. 11

Round, D. 95

Sakthivel, S. 165
Salber, D. 267
Southwick, R. 11
Steinberg, L. S. 249
Sukaviriya, P. 220
Suzuki, E. 114

Tanniru, M. 165
Temple, D. M. 95
Thomas, G. 230

Uma, G. 77, 174

van Zuylen, H.J. 3

Washbrook, J. 141
Woods, D. D. 189

Keyword index

Adaptive interfaces
Human–computer interaction, Intelligent systems 189
Intelligent interfaces, User models 197
User interface, User models 220
Customizability, Usage profiles 230
Intelligent user interfaces, User models 239

Case-based reasoning
Rule-based reasoning, Cooperative reasoning 103
Cognitive task analysis
Intelligent tutoring systems, Interface design 249
Computational physics
User interface, Decision support 3
Contextual design
User interface, Front ends 31
Cooperation
Problem solving, Distributed systems 77
Cooperative dialogue
Planning, Intentions 67
Cooperative reasoning
Case-based reasoning, Rule-based reasoning 103
Customizability
Adaptive interfaces, Usage profiles 230

Decision support
User interface, Computational physics 3
Distributed systems
Cooperation, Problem solving 77
Drug design
Logic programming, Inference 114

Front ends
User interface, Problem solvers 11
Simulation 17
User interface, Contextual design 31

Heuristics
Petri nets, Reachability trees 174
Human–computer interaction
Adaptive interfaces, Intelligent systems 189
Hypothetical reasoning
Predicate logic 87

Inference
Drug design, Logic programming 114
Information acquisition
Intelligent data handling, Medical expert systems 141
Information systems
Requirements analysis, Petri nets 165
Intelligent data handling
Information acquisition, Medical expert systems 141
Intelligent interfaces
Adaptive interfaces, User models 197
Intelligent systems
Adaptive interfaces, Human–computer interaction 189
Intelligent training systems
Knowledge representation, Natural language 157
Intelligent tutoring systems
Cognitive task analysis, Interface design 249
Intelligent user interfaces
Adaptive interfaces, User models 239
Intentions
Planning, Cooperative dialogue 67
Interactions
Planning, Truth-maintenance systems 95
Interface design
Cognitive task analysis, Intelligent tutoring systems 249
Wizard of Oz studies, Natural-language interfaces 258

Knowledge representation
Natural language, Intelligent training systems 157

Logic programming
Drug design, Inference 114

Medical expert systems
Information acquisition, Intelligent data handling 141
Model building
Problem decomposition, Problem solving 38
Multimodal user interfaces
Wizard of Oz studies, User interfaces 267

Natural language
Knowledge representation, Intelligent training systems 157
Natural-language interfaces
Interface design, Wizard of Oz studies 258

Object orientation
User interface, Speech 24

Petri nets
Requirements analysis, Information systems 165
Reachability trees, Heuristics 174
Planning
Intentions, Cooperative dialogue 67
Interactions, Truth-maintenance systems 95
Predicate logic
Hypothetical reasoning 87
Problem decomposition
Model building, Problem solving 38
Problem solvers
Front ends, User interface 11
Problem solving
Model building, Problem decomposition 38
Cooperation, Distributed systems 77

Reachability trees
Petri nets, Heuristics 174
Requirements analysis
Information systems, Petri nets 165
Rule-based reasoning
Case-based reasoning, Cooperative reasoning 103

Simulation
Front ends 17
Speech
User interface, Object orientation 24

Truth-maintenance systems
Planning, Interactions 95

Usage profiles
Adaptive interfaces, Customizability 230

User interface
Computational physics, Decision support 3
Front ends, Problem solvers 11
Speech, Object orientation 24
Contextual design, Front ends 31
User models, Adaptive interfaces 220
Multimodal user interfaces, Wizard of Oz studies 267
User models
Adaptive interfaces, Intelligent interfaces 197
User interfaces, Adaptive interfaces 220
Adaptive interfaces, Intelligent user interfaces 239
Wizard of Oz studies
Interface design, Natural-language interfaces 258
Multimodal user interfaces, User interfaces 267

Book reviews 127, 179–181
Calendar 63, 183
Editorial 2, 66, 187